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Figure 1B

1 gtgcccacaaactcctagtaatgaactttctcagggcattgttgacacaaaattttgtctgtgag  
61 taaaactttgggaatagagagagagactcttgagtgagagagagattcttgagtgagagagaggag  
121 atggaggcagacgaaagcggcatctctctcggcgtcgggacccgacggacgtaagcggcga  
M E A D E S G I S L P S G P D G R K R R 20  
181 gtcagttactttctacgagccgacgatcggagactactactacgggtcaaggccaccggatg  
V S Y F Y E P T I G D Y Y Y G Q G H P M 40  
241 aagcctcaccggatccgtatgggtcatagccataatcattcactatcaccctccaccgctgc  
K P H R I R M A H S L I I H Y H L H R R 60  
301 ttagaaaatcagtcgcccctagcctcgtcgaagcctccgatatacggccgattccattcggccg  
L E I S R P S L A D A S D I G R F H S P 80  
361 gagtatgttgacttctcgtcttcggttcggcgggaatctatggggcgatccttcggctgca  
E Y V D F L A S V S P E S M G D P S A A 100  
421 cgaaacctaaaggcgattcaatgtcgggtgaggattgtcctgtcttcgacgggaactttttgat  
R N L R R F N V G E D C P V F D G L F D 120  
481 ttttgccgtgcttcgcggcggaggttctattgggtgctgcccgtcaaattaaacagacaggac  
F C R A S A G G S I G A A V K L N R Q D 140  
541 gctgatatacgtatcaattggggcgggtgggcttcaccatgctaagaaaagcggaggttct  
A D I A I N W G G G L H H A K K S E A S 160  
601 gggttttgtctatgtaaacgacatcgtgctagggattcttgagttgctcaagatgtttaag  
G F C Y V N D I V L G I L E L L K M F K 180  
661 cgggttctctacatagatattgatgtccaccatggagatggagtggaagaagcgtttttac  
R V L Y I D I D V H H G D G V E E A F Y 200  
721 accactgatagagttatgactgtttctttccacaaattttggggactttttcccaggaact  
T T D R V M T V S F H K F G D F F P G T 220  
781 ggtcacataagagatgttggcgctgaaaaagggaaatactatgctctaaatgttccacta  
G H I R D V G A E K G K Y Y A L N V P L 240  
841 aacgatgggtatggaacgatgaaagtttccgcagcttggttttagacctcttatccagaagggt  
N D G M D D E S F R S L F R P L I Q K V 260  
901 atggaagtgtatcagccagagggcagttgttcttcagtggtggtgctgactccttaagtgggt  
M E V Y Q P E A V V L Q C G A D S L S G 280  
961 gatcgggttgggttgcttcaacttatcagtcgaagggtcacgctgattgccttcgggttctta  
D R L G C F N L S V K G H A D C L R F L 300  
1021 agatcttacaacgttctctcatgggtgttgggtggtgaagggtatactatttcgaaatggt  
R S Y N V P L M V L G G E G Y T I R N V 320  
1081 gcccggttgctgggtgttatgagactgcagttgctgttggagtagagccggacacaaaactc  
A R C W C Y E T A V A V G V E P D N K L 340  
1021 ccttacaatgagatattttgagatatttcggccccagattatacgttctcatgtcgacccaagt  
P Y N E Y F E Y F G P D Y T L H V D P S 360  
1201 cctatggagaattttaaacacgccccaaagatatggagaggataaggaacacgttgcgtggaa  
P M E N L N T P K D M E R I R N T L L E 380  
1261 caacttttcgggactaatacacgcacacctagcgtccagtttccagcacacaccaccagtcact  
Q L S G L I H A P S V Q F Q H T P P V N 400  
1321 cgagtttttggaacgagccggaagatgacatggagacaagacccaaaacctcgcctctggagt  
R V L D E P E D D M E T R P K P R I W S 420  
1381 ggaactgcgacttatgaatcagacagtgacgatgatgataaacctcttcatgggttactca  
G T A T Y E S D S D D D D K P L H G Y S 440  
1441 tgcgtggtggcgcaactacggacagggactctaccgggtgaagatgaaatggatgaacgat  
C R G G A T T D R D S T G E D E M D D D 460  
1501 aacccagagccagacgtgaatcctccatcgtcttaaacacagcttgatgggtttgggtgtctc  
N P E P D V N P P S S \* 471  
1561 ttttgccatgatgataatgtcggcagatttaagaaaacaagtttaggggaatgaatgattctc  
1621 tgatgttttttcagcaaccttttgagttctgtgaaaaagcgtgcattgattagaacagtgga  
1681 caactgactagtatttttgcccaagttagaabaatcagaatatgtgaaaaaaaaaaaaaaaa  
1741 aaaaaaaaaagggcggcggcgtcttagaggatccaaagttacgtacgggtgcctgacgctcat



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## Figure 2A

1 caccgctccgtaaaaaatcctctctctctctctcaaccttgattcttagccatggagttcttgg  
M E F W 4

61 ggaattgaagttaaatcaggaaaagccagttacagtgaactcctgaagaaggcattcttcttc  
G I E V K S G K P V T V T P E E G I L I 24

121 caccgtttctcaggcatcgcttggagaatgtaaaaacaagaagggagagtttgtgccttta  
H V S Q A S L G E C K N K K G E F V P L 44

181 catgtaaaggttgggaaccagaacttgggttctgggaactctatcgactgagaacatccct  
H V K V G N Q N L V L G T L S T E N I P 64

241 cagctttctgtgatttgggtattcgacaaggagtttgagctttctcacttggggaaaaa  
Q L F C D L V F D K E F E L S H T W G K 84

301 ggaagtgtttactttgttggatacaaaaactcccaacattgagccacaaggctattcttgag  
G S V Y F V G Y K T P N I E P Q G Y S E 104

361 gaagaagaggaagaagaggaagaagttcctgctgggaatgctgccaaggctgtagctaaa  
E E E E E E E E V P A G N A A K A V A K 124

421 ccaaaggctaagcctgcagaagtgaagccagctgttgatgatgaagaggatgagttctgat  
P K A K P A E V K P A V D D E E D E S D 144

481 tctgacggaatggatgaagatgattctgatgggtgaggattctgaggaagaagagcctaca  
S D G M D E D D S D G E D S E E E E P T 164

541 cctaagaagcctgcatcaagcaagaagagagctaataaactacccctaaagcacctgtg  
P K K P A S S K K R A N E T T P K A P V 184

601 tcagcaaagaaggcgaaagtagcagttactcctcagaaaaacagatgagaagaagaagg  
S A K K A K V A V T P Q K T D E K K K G 204

661 ggaaaggctgcaaaccagagcccaaagtcggccagtcgaagtctcatgttggttcacgcaag  
G K A A N Q S P K S A S Q V S C G S C K 224

721 aagactttcaactcagggaatgcacttgagttctcacaacaaggccaagcacgctgctgcc  
K T F N S G N A L E S H N K A K H A A A 244

781 aagtgaagtgggttcttatttagagcttgtgattttctatggaattttgcctgtagtcttta  
K \* 245

841 tgaaaaccttcggattttcttattttcttttttgataacaagagttcttaataaagagagagc  
cagttggagttcttaaaaaaaaaaaaaaaaaaaggggcggcgc

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## Figure 2B

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61	atggagttcttgaggagtgtgcggtgacaccaaaaaaacgctactaaaggtgactcctgaagaa	
	M E F W G V A V T P K N A T K V T P E E	20
121	gacagccttgtccacattttctcagggttccacttgactgcacagtgaaatctggagaatct	
	D S L V H I S Q A S L D C T V K S G E S	40
181	gtgggttttgagtgtagtctgttggtggggctaaaactgtgtatttggaacactttcacaaagac	
	V V L S V T V G G A K L V I G T L S Q D	60
241	aagttccctcagatttagcttttgatttggttttttgataaaagagtttgagctttcacacagc	
	K F P Q I S F D L V F D K E F E L S H S	80
301	ggtaccaaaagcaaattgttcatttcattgggtacaaaatecccccaacatcgagcaggatgac	
	G T K A N V H F I G Y K S P N I E Q D D	100
361	ttcactagtttcgggatgatgaggatgttctctgaagctgttctctgctcctgccctactgct	
	F T S S D D E D V P E A V P A P A P T A	120
421	gttactgccaacggaaatgctggagcagctgttgtcaaggctgacacaaaagccaaaggcc	
	V T A N G N A G A A V V K A D T K P K A	140
481	aaacctgccgaagtgaagcctgcagaagagaagcctgaatcagacgaggaagatgagtct	
	K P A E V K P A E E K P E S D E F D E S	160
541	gatgatgaagatgagttctgaagaggatgatgactctgagaaaaggaatggatgttgatgaa	
	D D E D E S E E D D D S E K G M D V D E	180
601	gatgactcagatgatgacgaggaggaggattctgaggatgaagaagaggaggagactcct	
	D D S D D D D E E E D S E D E E E E E T P	200
661	aagaagcctgagccaatcaacaagaagaggccaaatgaattctgtatccaaaacacccgctc	
	K K P E P I N K K R P N E S V S K T P V	220
721	tctggaaagaaggcaaaaaccagcagcagcaccagcttctactcctcagaagacagagaag	
	S G K K A K P A A A P A S T P Q K T E K	240
781	aagaaaggaggacacaccgccacaccacaccagctaagaagggttggaagtctcctgtg	
	K K G G H T A T P H P A K K G G K S P V	260
841	aatgctaaccagagccccaagtctggagggtcaatcatccgggtggtaacaacaacaagaag	
	N A N Q S P K S G G Q S S G G N N N K K	280
901	ccattcaactcaggcaaacattttgggtgggttccaacaacaagggttctaacaaggggcaag	
	P F N S G K Q F G G S N N K G S N K G K	300
961	ggaaagggttagagcttaaggacgtggatcaaggagaggttttgggttttcgagtagatga	
	G K G R A *	305
1021	tgaaaacacttggaagtgtggttttggatttttatcttatctttatttagtataacttgtaa	
1081	tccgatgagctatttttgagtattttgcaattctctactttctctatgtaatttcagtatatgaa	
1141	tatttggctgaaatgagaaagaagactcgaattcgcaaacaaaaaaaaaaaaaaaaaaaaaaaa	
1201	aaggggggggccc	



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## Figure 3

ATPFD3A	MD	---TGG	NSLASVGPDG	KRFVCYFYD	PDVGNYYYGO	GHPMKPHRIR	45
ATPFD3B	MEADSSGI	---	SLPS-GPDG	KRFVYFYE	PDVGNYYYGO	GHPMKPHRIR	47
CMFPD3	MDPCCAGSGG	---	NSLPSVGPDG	KRFVCYFYD	PDVGNYYYGO	GHPMKPHRIR	50
RPD3	MVYEATPFD	---	BTWXP	KRFVAYFYD	ADVGNYYGA	GHPMKPHRIR	46
ATPFD3A	MTHALLAHYG	LLHMOVLEP	FPARERELCR	FHADYVCF	RSITPETQOD		25
ATPFD3B	MAHSLIHYH	LHPRLERLP	CLADASDIER	FHSPEYDFL	ASVLPESMGD		27
CMFPD3	MTHSLLAHYG	LLHMOVYRP	FPARERELCR	FHAHEYINFL	RSVTPETQOD		100
RPD3	MAHSLIMNYG	LYFKMEIYRA	FPATKLEMC	FHTDEYIDFL	SPVTPDNLEM		26
ATPFD3A	OI	RLKRF	NVGEDCPVFD	GLYSFCOTYA	GGSVGGVVKL	NHGHCDIAIN	143
ATPFD3B	PSAARNLRR	---	NVGEDCPVFD	GLPFCFAL	GGSIQAVKL	NRODADIAIN	147
CMFPD3	OI	RLKRF	NVGEECPVLD	GLYSFCOTYA	GSVGGAVKF	NHGHCDIAIN	148
RPD3	---	FRBSVHF	NVGEDCPVFD	GLYEYCSISG	GGSMGGAARL	NHGHCDIAIN	144
ATPFD3A	WAGGLHHAKE	CEASGFCYVN	DIVLAILELL	KHERVLYVD	IDIHGGDGV		193
ATPFD3B	WAGGLHHAKE	SEASGFCYVN	DIVLGILELL	KMFERVLYID	IDVHHGGDGV		197
CMFPD3	WAGGLHHAKE	CEASGFCYVN	DIVLAILELL	KHHERVLYVD	IDIHGGDGV		198
RPD3	YAGGLHHAKE	SEASGFCYVN	DIVLGILELL	RYHERVLYID	IDVHHGGDGV		194
ATPFD3A	EAFYTDRVM	TVSFHKFGDY	FPGTGHI	DI	GYSSCKYYSL	NVPLDDGIDD	243
ATPFD3B	EAFYTDRVM	TVSFHKFGDF	FPGTGHIRD	---	GAEKGYKYYAL	NVPLDDGMD	247
CMFPD3	EAFYTDRVM	TVSFHKFGDY	FPGTGDIRDI	---	GHSKGYKYYSL	NVPLDDGIDD	248
RPD3	EAFYTDRVM	TVSFHKYGEF	FPGTGELRDI	---	GUGAGKNYAV	NVPLDDGIDD	244
ATPFD3A	ESYHLFKPI	MKVMEIFRP	GAUVLOCGAD	SLSGDRLGCF	NLSIKGHAEC		293
ATPFD3B	ESYRSLFRPL	IKVMEVYOP	GAUVLOCGAD	SLSGDRLGCF	NLSIKGHAEC		297
CMFPD3	ESYSLFKPI	MKVMEVERP	GAUVLOCGAD	SLSGDRLGCF	NLSIKGHAEC		298
RPD3	ATYRSVFEPV	IKKIMEWYOP	SAUVLOCGAD	SLSGDRLGCF	NLSMEGHANC		294
ATPFD3A	VFMRSFNVP	LLLGGGGYT	IRNVARCWY	ETGVALGVEV	EDKMPHEYY		343
ATPFD3B	LRFRSFNVP	LMVLGGGGYT	IRNVARCWY	ETAVANGVEP	DKLPYNEYF		347
CMFPD3	VFMRSFNVP	LLLGGGGYT	IRNVARCWY	ETGVALGEP	EDKMPYNEYF		348
RPD3	VFMVRSFGIP	MMVGGGGYT	IRNVARCWY	ETGLLNNVVL	DDLPYNEYF		344
ATPFD3A	EYFGPDYTLH	VAPSNMENKN	SFOMLEIRN	DLHNLSKLO	HAPSVFOER		393
ATPFD3B	EYFGPDYTLH	VAPSNMENKN	TPKMERIRN	TLLHNLSGLI	HAPSVFOHT		397
CMFPD3	EYFGPDYTLH	VAPSNMENKN	TRQLEIRS	---FLSKLR	HAPSVFOER		394
RPD3	EYFGPDYFLS	VAPSNMFMVN	TREYLDKMT	NIEANLENTK	VAPSVOLNHT		394
ATPFD3A	PPDTETPEVD	EDCEDGDFRW	DPDSMDVD	D-----R	KPIPSRYKRE		435
ATPFD3B	PPVNRVLD	---	EPEDDME	-----TR	KP---RIWSG		421
CMFPD3	PPDEIPEVD	EDCEDDFDRH	DPDSMEVD	HFAVEESSRR	SILGTHIKRE		444
RPD3	P-----R	---	DAEDLGVEE	DSA-----	---		408
ATPFD3A	AVEPDTFEKD	GLKOIMEPGY	GCEVEVDESG	STKNT---GV	NPVGVBEAS-		481
ATPFD3B	TATYEEDSD	CKNPL---HGY	SC-----	---PGATTDR	OSTGEDEMD		489
CMFPD3	SGENATFVVD	GGRVACEH-R	SLEPMAEDIG	SFELAPLADA	CAMATDEPSN		493
RPD3	---	---	---	---	---EAFD		410
ATPFD3A	VKMEEEOTNK	GOAETAFPPF	T				500
ATPFD3B	DNPEPDVNP	-----PSS					471
CMFPD3	VKNEPESSTK	LQCAAAABK	P				514
RPD3	TEGROLYAK	LHVERDNEFY					400



AAHDLA	MEFWG	EVK	GIV	VTPEE	G L H	SOAS	LGE	KKGE	V L V	KVGV	100	
AAHDLB	MEFWG	AVIP	MAAK	VTPPE	G L H	SOAS	LGE	KKSGE	V L V	VGV	100	
AAHDL	MEFWG	EVKP	MAAK	KTPPE	G L H	SOAS	LGE	KK	MAAK	VK	100	
AAHDLA	OKLV	GTLS	DKP	QI	FDL	VFDKEFELSH	TOK	SV	FT	GYK	PNIE	100
AAHDLB	OKLV	GTLS	DKP	QI	FDL	VFDKEFELSH	TOK	SV	FT	GYK	PNIE	100
AAHDL	OKLV	GTLS	DKP	QI	FDL	VFDKEFELSH	TOK	SV	FT	GYK	PNIE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLA	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDLB	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	DEE	100
AAHDL	DEE	DEE</										



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FIGURE 5

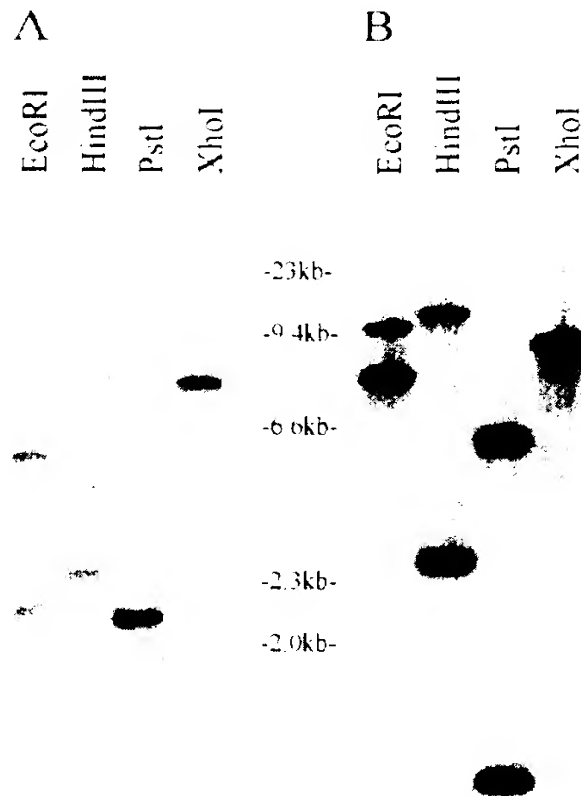
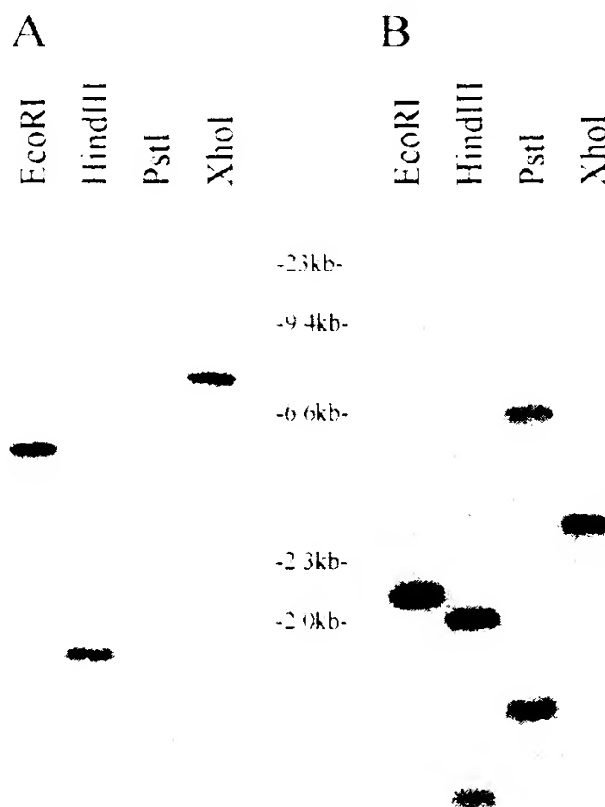


FIGURE 6

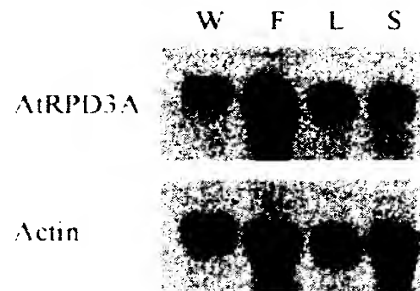






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FIGURE 7





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FIGURE 8

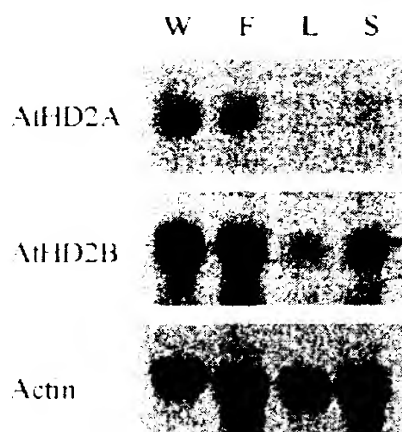
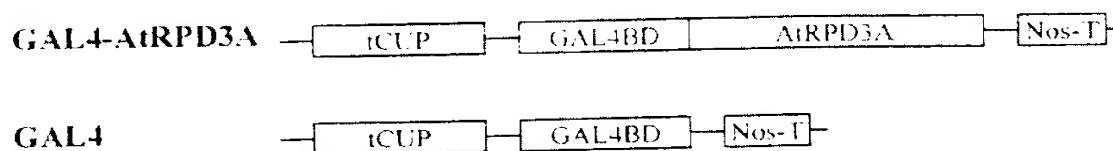


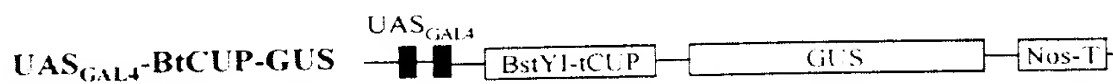
FIGURE 9

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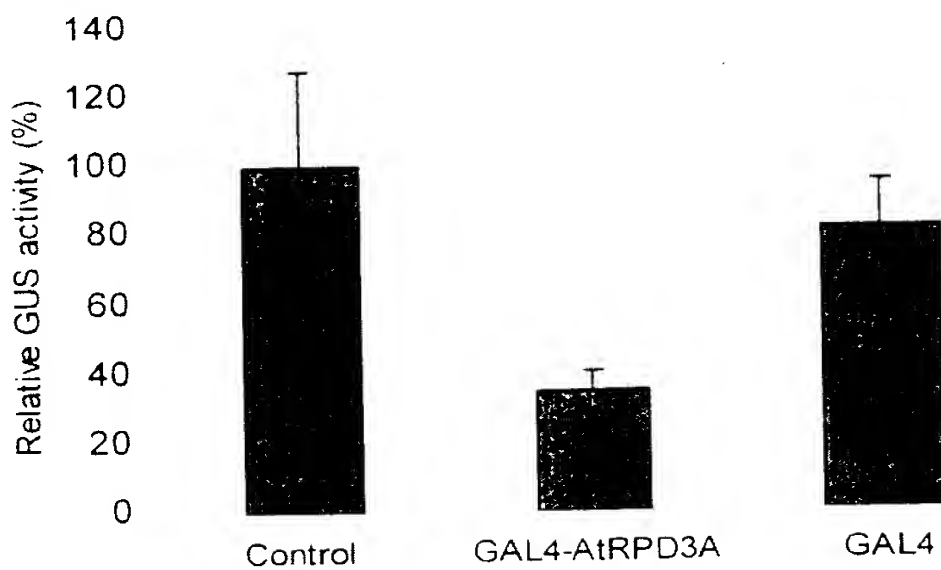
Effector Plasmids



Reporter Plasmid



B



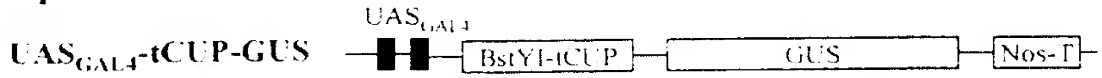


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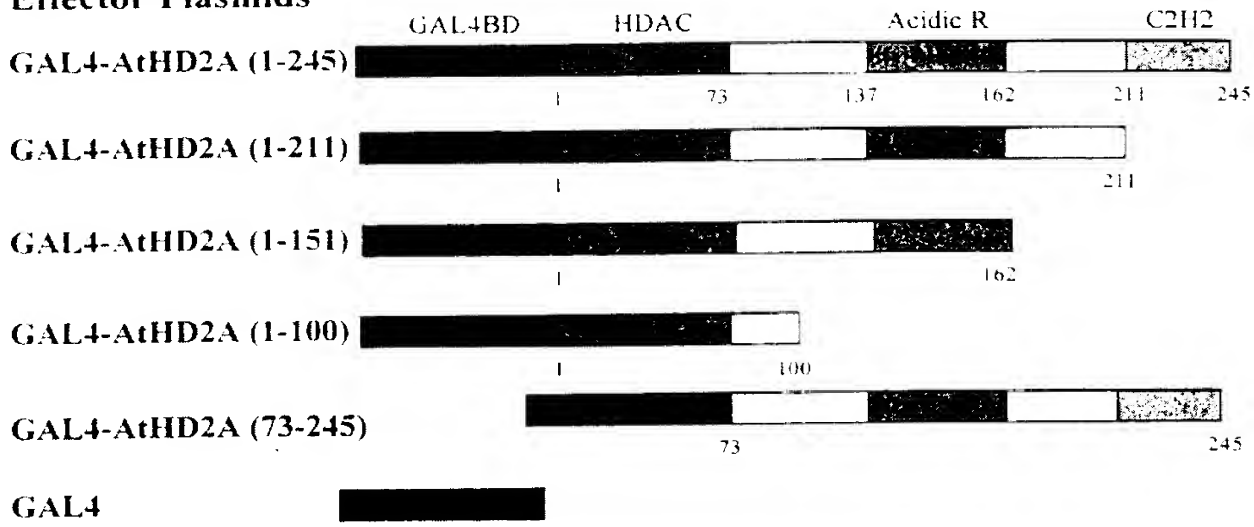
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FIGURE 10

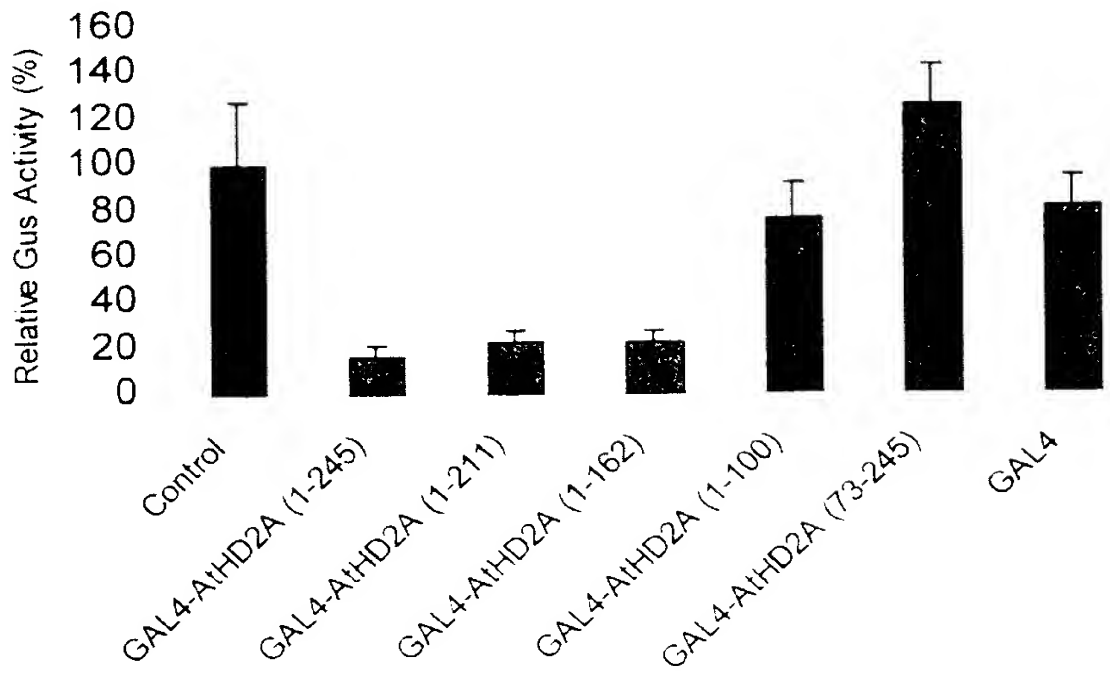
Reporter Plasmid



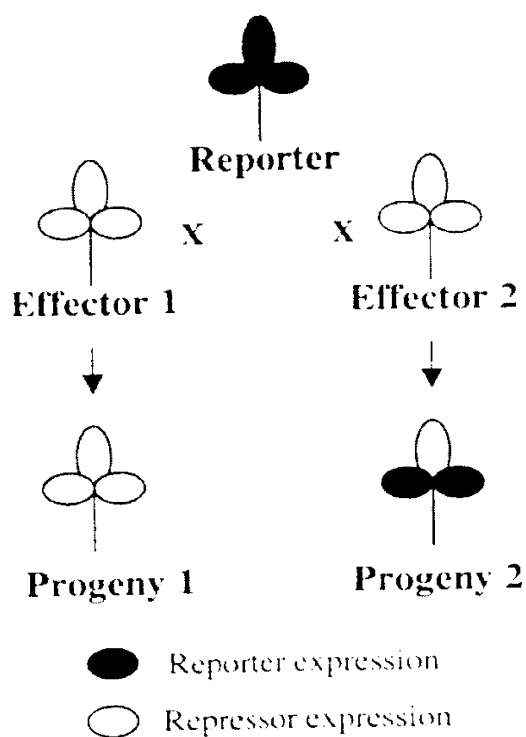
Effector Plasmids



B



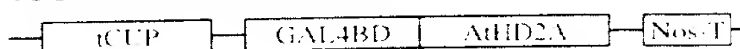
A



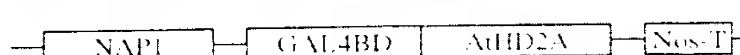
B

### Effector Plasmids

iCUP-GAL4/AtHD2A (Effector 1)



NAP1-GAL4/AtHD2A (Effector 2)



### Reporter Plasmid

UAS<sub>GAL4</sub>-iCUP-GUS (or UAS<sub>GAL4</sub>-35S-GUS)



Figure 17



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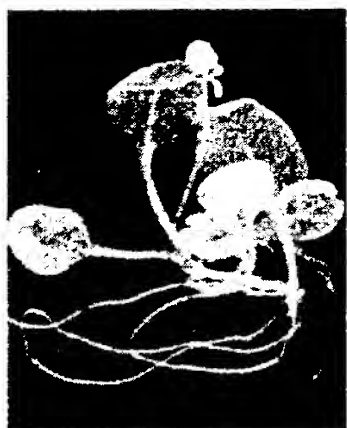
SEP 12 2002

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A



B



C



Figure 18

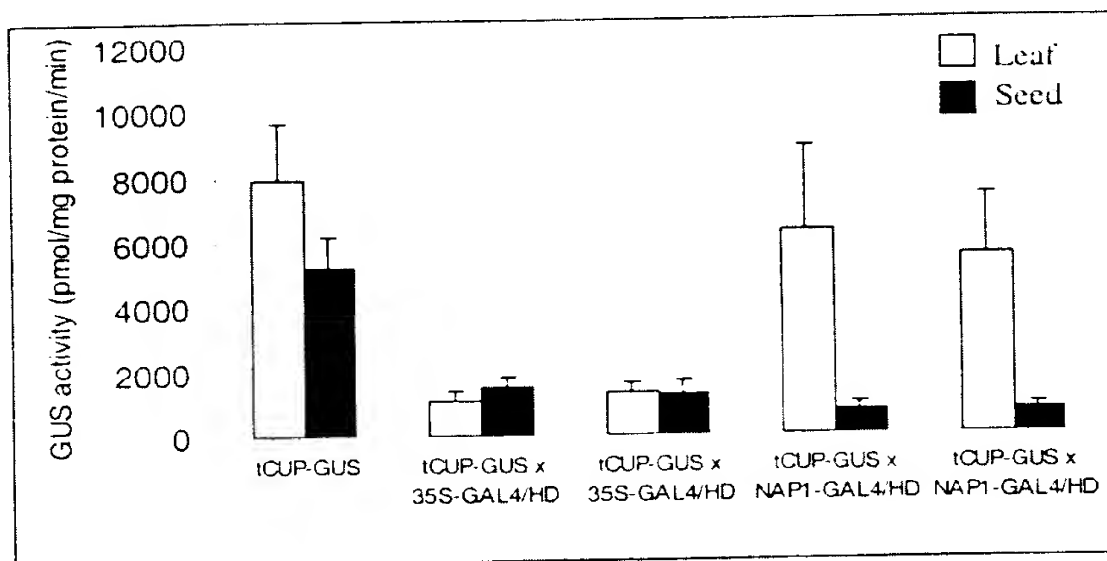


Figure 19(a)



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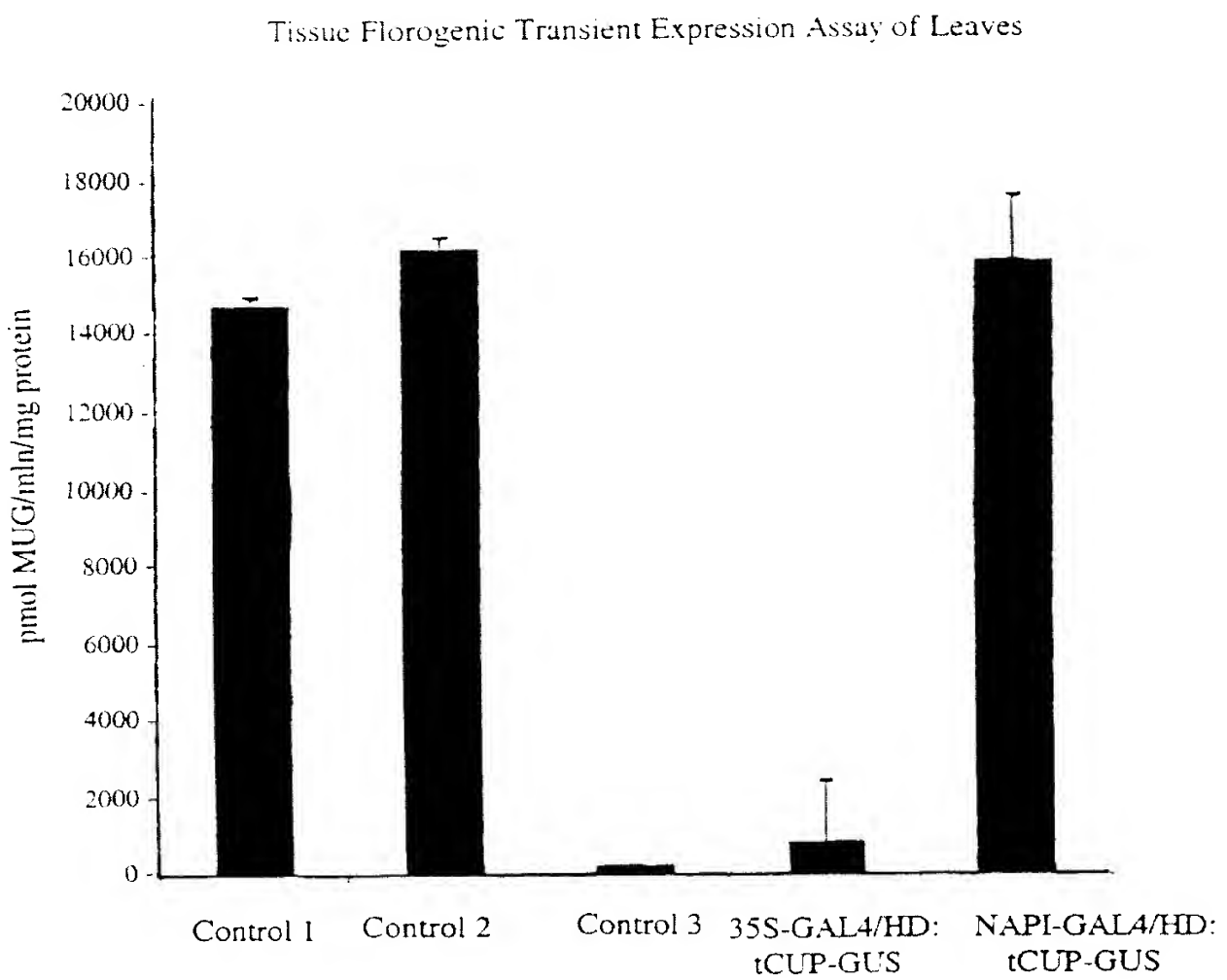


Figure 19(b)





### Tissue Florogenic Transient Expression Assay of Seeds

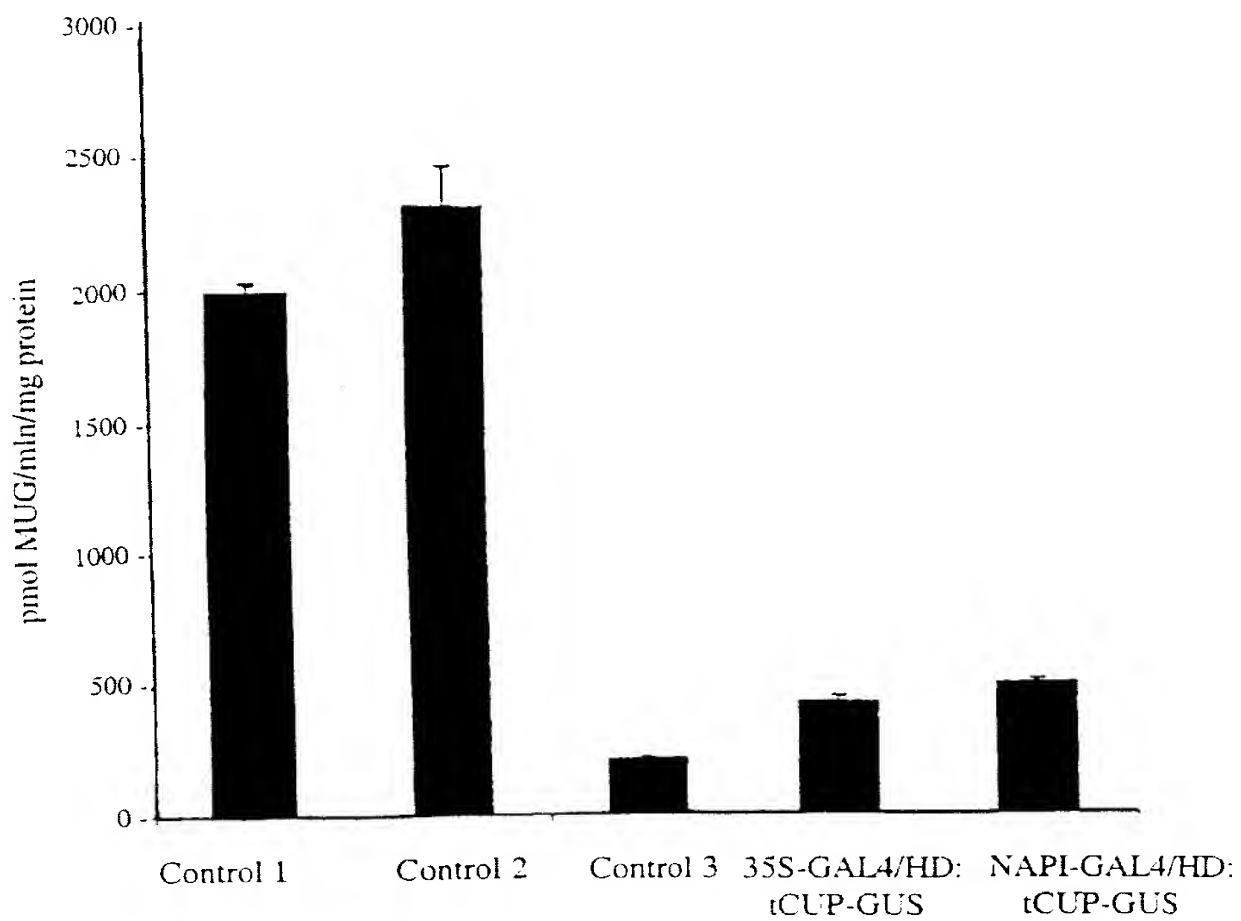
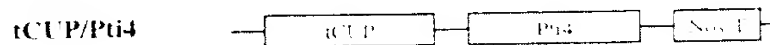
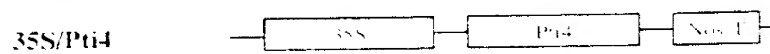


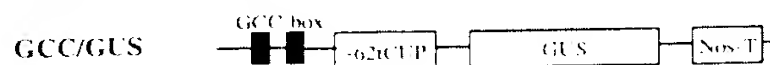
Figure 19(c)

**A**

**Effector Plasmids**



**Reporter Plasmid**



**B**

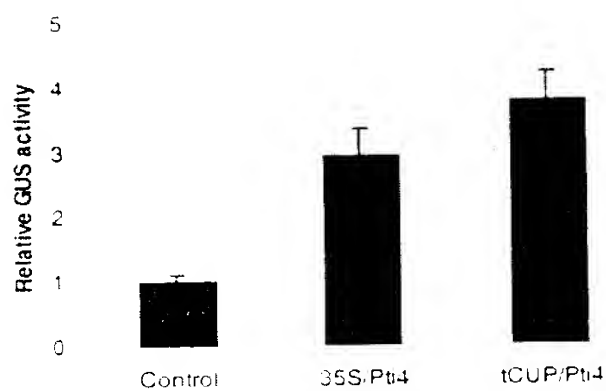


Figure 20



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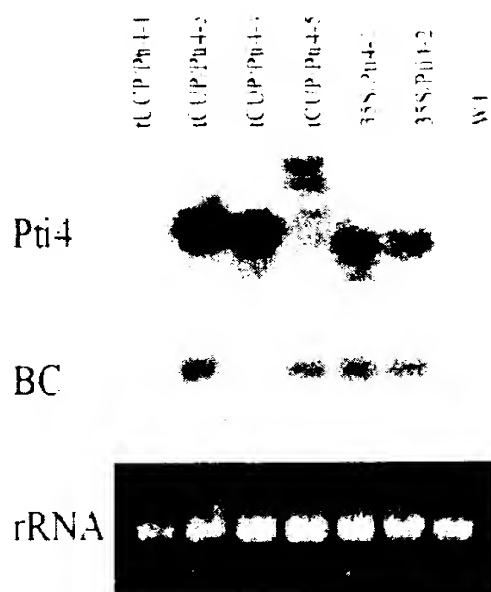


Figure 21



Figure 23



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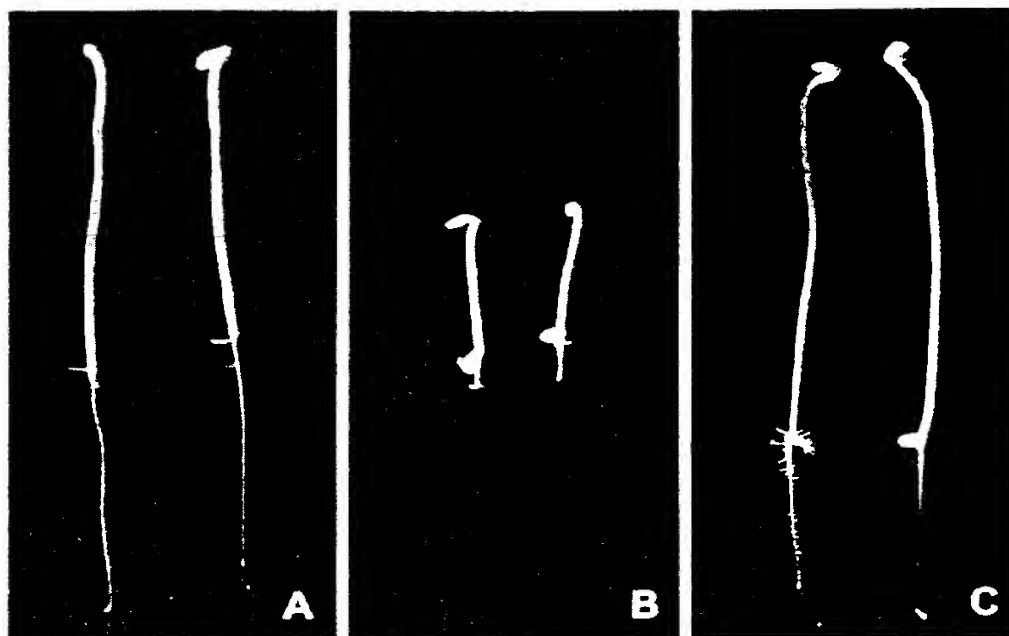


Figure 24